

Patent Claims:

1. Method for monitoring chassis functions and chassis components of a motor vehicle and/or for detecting wear, wear trends, component defects or declining functions, characterized in that information provided by control systems mounted in the vehicle and/or obtained by way of additional sensors is evaluated, that evaluations relating to vehicle dynamics are carried out on the basis of said information, with reproducible vehicle or driving conditions, and that the evaluations relating to driving dynamics are taken into account in order to statistically evaluate specific features, which directly or indirectly reflect chassis functions and/or the condition of chassis components, and to subsequently identify defects or malfunctions.
2. Method as claimed in claim 1, characterized in that for detecting the vehicle or driving conditions and for carrying out the driving-dynamics evaluations, the following signals sent by the sensors of an electronic brake system such as ABS, TCS, ESP, etc. provided in the vehicle, are utilized exclusively or in conjunction with the signals of additional sensors:

wheel speed information,
transverse acceleration,
yaw rate and
system pressure.

3. Method as claimed in claim 1 or 2,
c h a r a c t e r i z e d in that the vehicle
deceleration and/or the suspension travels are determined
and evaluated in addition.

4. Method as claimed in any one or more of claims 1 to 3,
c h a r a c t e r i z e d in that one or more of the
following reproducible specific vehicle or driving
conditions

straight travel

cornering

stable vehicle

unstable vehicle

freely rolling vehicle

decelerated vehicle

accelerated vehicle

are detected and evaluated by a detection of patterns on
the basis of the information supplied by the control
systems provided in the vehicle and/or obtained by means
of additional sensors.

5. Method as claimed in claim 4,
c h a r a c t e r i z e d in that the detected specific
vehicle or driving conditions and/or anomalies induced by
a defect and typical of a situation are taken into account
when assessing and evaluating the information obtained by
means of the available sensors or additional sensors.

6. Method as claimed in claim 5,
c h a r a c t e r i z e d in that the evaluation of the
detected vehicle or driving conditions and/or the
anomalies induced by a defect and typical of a situation
takes place only when the vehicle or driving conditions
satisfy predetermined qualitative and quantitative
marginal conditions or reach limit values.
7. Method as claimed in claim 5 or 6,
c h a r a c t e r i z e d in that the detected anomalies
are accumulated related to features within a statistical
program algorithm and considered and evaluated as a whole.
8. Method as claimed in claim 7,
c h a r a c t e r i z e d in that a warning signal is
issued and/or an error is input in a memory as soon as the
anomalies are detected or have exceeded a defined
perception threshold.